

REMARKS

With entry of this amendment, claims 1-7, 13-66, 70-110, 114-117, 119-122 and 125 are pending. Claims 1-7, 13-63, 70-110, 119 and 120 have been withdrawn from consideration. The claims have been amended to overcome objections and rejections under 35 USC § 112, second paragraph. Support for the amended claims can be found in the originally filed claims and throughout the specification. No new matter has been added.

In the Action, the Examiner objected to the specification because the sequences in Figure 9 have not been identified by SEQ ID NOS. The Examiner also set forth several objections to the claims. A new sequence listing, including the sequences found in Figure 9 is filed herewith in both paper and computer readable form. The legend to Figure 9 has been amended to include the new SEQ ID NOS.

The specification was objected to because of the reference to claim numbers in pages 6-17. The specification has been amended to remove the claim numbers, in accordance with U.S. practice.

Claims 8-12, 64-69, 111-118 and 121-125 were rejected under 35 USC § 112, second paragraph, as being indefinite. The claims have been amended and are believed to be free of the rejection.

Claims 8-12, 64-69, 111-118 and 121-125 were rejected under 35 USC § 112, first paragraph, as not being enabled, and under 35 USC § 112, first paragraph, as failing to comply with the written description requirement. These rejections are respectfully traversed.

The Examiner states that "It is noted that SEQ ID NO: 39 is a partial DNA (not an open reading frame) encoding a partial protein, and therefore, the ability of SEQ ID NO: 39 encoding SEQ ID NO: 40 to confer environmental stress tolerance is uncertain. Therefore, the written description requirements of SEQ ID NO: 39 have not been satisfied." However, as is shown in the Reference Figure 1, submitted herewith, *E. coli* that is transformed with the DNA of SEQ ID NO:39 encoding the protein (Sj-PEAMT) shown by SEQ ID NO: 40 exhibits an improved salt tolerance than does the control (*E. coli* transformed with pBluescript SK) in the presence of 450 mM NaCl, although there is no difference between the two types of *E. coli* regarding the

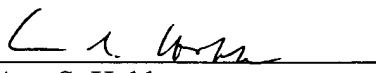
improvement of salt tolerance in the presence of 86 mM NaCl. In addition, as is shown in Reference Figure 2, submitted herewith, *E. coli* that is transformed with the DNA of SEQ ID NO:39 encoding the protein (Sj-PEAMT) shown by SEQ ID NO: 40 produces greater amount of Glycine betaine (GB) than does the control (*E. coli* transformed with pBluescript SK) in the presence of 500 mM NaCl, although there is no difference between the two types of *E. coli* regarding the GB amount produced in the presence of 86 mM NaCl. *E. coli* accumulates GB by oxidizing choline (same is true with plants). Sj-PEAMT is a necessary enzyme for producing choline, and it is presumed that *E. coli* introduced with Sj-PEAMT is probably accumulating choline. It is thought that GB contents under salt stress differ greatly due to the fact that a choline oxidizing enzyme held by *E. coli* itself inactivates under salt stress.

The function of Sj-PEAMT will not be affected even though an amino acid sequence in the N-terminus is lost.

Reconsideration and withdrawal of the rejections is respectfully requested. If the Examiner believes that prosecution would be expedited by a telephonic interview, a telephone call to the undersigned would be greatly appreciated.

Respectfully submitted,

Date: 12/16/04


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